

## **CLAIM AMENDMENT**

1. (Currently Amended) A method of creating a virtual disk storage construct using disk storage consolidated from ~~at least two~~ a plurality of grid computers of a computing grid utilizing a connecting network, the plurality of grid computers comprising at least one administering host computer and a plurality of participating computers, the method comprising:

loading an agent application onto at least one ~~[[grid]]~~participating computer of the ~~at least two~~plurality of grid computers;

locating, by the agent application, an unused portion of a total disk storage space on the at least one ~~[[grid]]~~participating computer connected by the connecting network of the computing grid;

receiving, by the agent application on the at least one ~~[[grid]]~~participating computer, designation of a minimum amount of disk storage space to be reserved on the at least one ~~[[grid]]~~participating computer for local use by a local user;

allocating, by the agent application, a reserved portion of the total disk storage space on the at least one ~~[[grid]]~~participating computer to local use by the local user, the reserved portion of the total disk storage space on the at least one ~~[[grid]]~~participating computer including the minimum amount of disk storage space designated exclusively by the local user to be reserved for local use by the local user;

allocating, by the agent application, at least a portion of the total disk storage space on the at least one ~~[[grid]]~~participating computer to be made available for use by users of the computing grid, the available portion excluding the reserved portion so that the reserved portion of the total disk storage space is not available for use by users of the computer grid;

presenting, as a single combined virtual storage drive on at least one computer, the available portion of the total disk storage space from the disk drive of each of the ~~at least two~~plurality of grid computers; ~~[[and]]~~

monitoring, by the agent application, the at least one ~~[[grid]]~~ participating computer for activity indicating that additional disk storage space has been added to the at least one grid computer; and

copying data from the reserved portion of the total disk storage space of the at least one participating computer to an available portion of another one of the plurality of grid computers of the computing grid that has been made available to the virtual storage drive to thereby backup the copied data from the reserved portion of the at least one participating computer, the data from the reserved portion of the total disk storage space of the at least one participating computer being broken up into a plurality of units and each of the units being stored on the available portion of different ones of the plurality of grid computers of the computing grid so that the entirety of the backed up data is not saved on the disk storage space in a single location or on a single grid computer, and the backed up data being presented to the local user of the at least one participating computer as a single disk drive or a single location on the at least one participating computer;

wherein said designation of the minimum amount of total disk storage space to be reserved is made at the at least one [[grid]]participating computer subject to the disk storage space reservation by the local user of the at least one [[grid]]participating computer.

2. (Currently Amended) The method of Claim 1 additionally including allocating a portion of the total disk storage space on each of the ~~at least two grid~~ plurality of participating computers to be made available as part of the virtual storage drive.

3. (Currently Amended) The method of claim 2 wherein allocating a reserved portion of the total disk storage space includes reserving a portion of predetermined size of the total disk storage space on the at least one [[grid]] participating computer.

4. (Currently Amended) The method of claim 1 additionally including determining by the agent application the total disk storage space on each of the at least one [[grid]] participating computer; and

wherein the portion available for use as part of the virtual storage space is of a fixed size and the reserved portion for local use on the [[grid]] participating computer is

of a fixed size, the size of the portion reserved for local use being fixed by the local user through the designation of the minimum amount of free disk storage space.

5. (Currently Amended) The method of claim 1 additionally including maintaining, at one of the at least one administering host computer, a table of grid computers contributing storage space to the virtual storage drive and corresponding amounts of storage space made available by each contributing grid computers.

6. (Cancelled)

7. (Currently Amended) The method of claim ~~[[27]]~~1 additionally including reallocating disk storage space on the at least one ~~[[grid]]~~participating computer by the agent application after detecting activity indicating that additional storage space has been added to the at least one ~~[[grid]]~~participating computer.

8. (Currently Amended) A method of creating a virtual disk storage construct using disk storage consolidated from ~~at least two~~a plurality of grid computers of a computing grid utilizing a connecting network, the plurality of grid computers comprising at least one administering host computer and a plurality of participating computers, the method comprising:

loading an agent application onto at least one ~~[[grid]]~~participating computer of the ~~at least two~~plurality of grid computers;

locating, by the agent application, an unused portion of a total disk storage space on the at least one ~~[[grid]]~~participating computer connected by the connecting network of the computing grid;

receiving, by the agent application on the at least one ~~[[grid]]~~participating computer, designation of a minimum amount of disk storage space to be reserved on the total disk storage space of the at least one ~~[[grid]]~~participating computer for local use by a local user;

allocating, by the agent application, a reserved portion of the total disk storage space on the at least one ~~[[grid]]~~participating computer to local use by the local user,

the reserved portion of the total disk storage space on the at least one [[grid]]participating computer including the minimum amount of disk storage space designated exclusively by the local user to be reserved for local use by the local user;

allocating, by the agent application, at least a portion of the total disk storage space on the at least one [[grid]]participating computer to be made available for use by users of the computing grid, the available portion excluding the reserved portion so that the reserved portion of the total disk storage space is not available for use by users of the computing grid;

presenting, as a single combined virtual storage drive on at least one computer, the available portion of the total disk storage space from the disk drive of each of the ~~at least two grid~~ plurality of participating computers;

monitoring, by the agent application on the at least one [[grid]]participating computer, for activity indicating that the minimum amount of reserved disk storage space of the total disk storage space on the one [[grid]]participating computer has not been maintained; [[and]]

reallocating, by the agent application, disk storage space on the at least one [[grid]]participating computer for use by local applications after detecting activity indicating that the minimum amount of reserved disk storage space has not been maintained in order to restore at least the minimum amount of reserved disk storage space designated by the local user; and

copying data from the reserved portion of the total disk storage space of the at least one participating computer to an available portion of another one of the plurality of grid computers of the computing grid that has been made available to the virtual storage drive to thereby backup the copied data from the reserved portion of the at least one participating computer, the data from the reserved portion of the total disk storage space of the at least one participating computer being broken up into a plurality of units and each of the units being stored on the available portion of different ones of the plurality of grid computers of the computing grid so that the entirety of the backed up data is not saved on the disk storage space in a single location or on a single grid computer, and the backed up data being presented to the local user of the

at least one participating computer as a single disk drive or a single location on the at least one participating computer;

wherein said designation of the minimum amount of disk storage space to be reserved is made at the at least one [[grid]]participating computer subject to the disk storage space reservation by the local user of the at least one [[grid]]participating computer.

9. (Cancelled)

10. (Currently Amended) The method of claim 1 additionally including providing a safe area on the available portion of the disk storage space of the at least one [[grid]]participating computer, the safe area being kept free of data.

11. (Currently Amended) The method of claim 1 additionally including loading the agent application on each of the ~~at least two~~ grid plurality of participating computers for managing the available portion of the total disk storage space on the grid computer for the virtual storage drive.

12. (Cancelled)

13. (Currently Amended) A computer readable medium tangibly embodying a program of instructions implementing the following method of creating a virtual disk storage construct using disk storage consolidated from ~~at least two~~ a plurality of grid computers of a computing grid utilizing a connecting network, the plurality of grid computers comprising at least one administering host computer and a plurality of participating computers, the method comprising:

loading an agent application onto at least one [[grid]]participating computer of the ~~at least two~~ plurality of grid computers;

locating, by the agent application, an unused portion of a total disk storage space on the at least one [[grid]]participating computer of the ~~at least two~~ plurality of grid computers connected by the connecting network of the computing grid;

receiving by the agent application on the at least one [[grid]]participating computer, designation of a minimum amount of disk storage space to be reserved on the disk drive of the at least one [[grid]]participating computer for local use by a local user;

allocating, by the agent application, a reserved portion of the total disk storage space on the at least one [[grid]]participating computer to local use by the local user, the reserved portion of the total disk storage space on the at least one [[grid]]participating computer including the minimum amount of disk storage space designated by the local user to be reserved for local use by the local user;

allocating, by the agent application, at least a portion of the total disk storage space on the at least one [[grid]]participating computer to be made available for use by users of the computing grid, the available portion excluding the reserved portion so that the reserved portion of the total disk storage space is not available for use by users of the computer grid~~[[.]]; [[and]]~~

presenting, on at least one computer, the available portion of the total disk storage space of each of the ~~at least two grid~~participating computers as a single combined virtual storage drive; and

copying data from the reserved portion of the total disk storage space of the at least one participating computer to an available portion of another one of the plurality of grid computers of the computing grid that has been made available to the virtual storage drive to thereby backup the copied data from the reserved portion of the at least one participating computer, the data from the reserved portion of the total disk storage space of the at least one participating computer being broken up into a plurality of units and each of the units being stored on the available portion of different ones of the plurality of grid computers of the computing grid so that the entirety of the backed up data is not saved on the disk storage space in a single location or on a single grid computer, and the backed up data being presented to the local user of the at least one participating computer as a single disk drive or a single location on the at least one participating computer;

wherein said designation of the minimum amount of disk storage space to be reserved is made at the at least one [[grid]]participating computer subject to the disk

storage space reservation by the local user of the at least one [[grid]]participating computer.

14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) The computer readable medium of claim 13 additionally comprising monitoring the at least one [[grid]]participating computer by the agent application for activity indicating that additional disk storage space has been added to the at least one [[grid]]participating computer.

17. (Currently Amended) The computer readable medium of claim 13 additionally comprising monitoring the at least one [[grid]]participating computer by the agent application for activity indicating that a minimum amount of free disk storage space of the total disk storage space on the [[grid]]participating computer has not been maintained.

18. (Previously Presented) The computer readable medium of claim 13 additionally comprising providing a safe area in the available portion of the total disk storage space of the virtual storage drive, the safe area being kept free of data.

19. (Cancelled)

20. (Cancelled)

21. (Currently Amended) A method of creating a virtual disk storage construct using disk storage consolidated from ~~at least two~~ a plurality of grid computers of a computing grid utilizing a connecting network, the plurality of grid computers comprising at least one administering host computer and a plurality of participating computers, the method comprising:

loading an agent application onto at least one ~~[[grid]]participating~~ computer of the ~~at least two~~plurality of grid computers;

locating, by the agent application, an unused portion of a total disk storage space on the at least one ~~[[grid]]participating~~ computer of the ~~at least two~~plurality of grid computers connected by the connecting network of the computing grid;

receiving, by the agent application on the at least one ~~[[grid]]participating~~ computer, designation of a minimum amount of disk storage space to be reserved on the at least one ~~[[grid]]participating~~ computer for local use by a local user;

determining, by the agent application, the total disk storage space on the at least ~~[[grid]]participating~~ computer;

allocating, by the agent application, a reserved portion of the total disk storage space on the at least one ~~[[grid]]participating~~ computer to local use exclusively by the local user, the reserved portion of the total disk storage space on the at least one ~~[[grid]]participating~~ computer including the minimum amount of disk storage space designated by the local user to be reserved for local use by the local user;

allocating, by the agent application, at least a portion of the total disk storage space on the at least one ~~[[grid]]participating~~ computer to be made available for use by users of the computing grid, the available portion excluding the reserved portion so that the reserved portion of the total disk storage space is not available for use by users of the computing grid,

wherein allocating a reserved portion of the total disk storage space includes reserving a portion of predetermined size of the total disk storage space on each of the ~~at least two grid~~plurality of participating computers;

presenting, on at least one ~~[[grid]]participating~~ computer, the available portion of the total disk storage space of each of the ~~at least two grid~~participating computers as a single combined virtual storage drive;

maintaining, on one of the at least one administering host computer, a table of grid computers contributing storage space to the virtual storage drive and corresponding amounts of storage space made available by each contributing grid computers;



monitoring, by the agent application, the at least one [[grid]]participating computer for activity indicating that additional disk storage space has been added to the at least one [[grid]]participating computer, and reallocating, by the agent application, disk storage space on the at least one [[grid]]participating computer if the agent application detects activity indicating that additional storage space has been added to the at least one [[grid]]participating computer;

monitoring, by the agent application, the at least one [[grid]]participating computer for activity indicating that a minimum amount of free disk storage space of the total disk storage space on the at least one [[grid]]participating computer has not been maintained, and reallocating, by the agent application, disk storage space on the at least one [[grid]]participating computer for use by local applications if the agent application detects activity indicating that the minimum amount of free disk storage space has not been maintained in order to restore at least the minimum amount of free disk storage space;

providing a safe area on disk storage space of the virtual storage drive, the safe area being kept free of data; and

copying data from the reserved portion of the disk storage space of the at least one ~~of the grid~~ participating computers to an available portion of ~~at least two~~ a plurality of other [[grid]]participating computers of the computing grid that have been made available to the virtual storage drive to thereby backup the copied data from the reserved portion of the at least one [[grid]]participating computer, the data from the reserved portion of the total disk storage space of the at least one participating computer being broken up into a plurality of units and each of the units being stored on the available portion of different ones of the plurality of participating computers of the computing grid so that the entirety of the backed up data is not saved on the disk storage space in a single location or on a single grid computer, and the backed up data being presented to the local user of the at least one participating computer as a single disk drive or a single location on the at least one participating computer;

wherein said designation of the minimum amount of disk storage space to be reserved is made at the at least one [[grid]]participating computer exclusively by the

local user of the at least one grid computer and the minimum amount of disk storage space is not available for use by users of the computing grid.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Currently Amended) The method of claim 1 wherein monitoring includes determining that a total disk storage space on the at least one [[grid]]participating computer has been increased when the agent application detects the addition of a disk drive to the at least one [[grid]]participating computer.

26. (Cancelled)

27. (Currently Amended) The method of claim 1 additionally including detecting, by the agent application, activity on the at least one [[grid]]participating computer indicating that additional storage space has been added to the at least [[one]]participating grid computer.

28. (Currently Amended) The method of claim 1 wherein the reserved portion of the total disk storage space of the at least one [[grid]]participating computer is not available for use as a part of the virtual storage drive.

29. (Currently Amended) The method of claim 27 additionally comprising determining a total disk storage space including the additional storage space detected, reallocating the reserved portion and the available portion of the total disk storage space, and communicating information regarding the reallocated portions of the total disk storage space for inclusion of the available portion as a part of the single combined virtual disk storage drive.